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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/696,436 | 10/24/2000 | Ted J. Cooper | 80398.P350 | 3904 |

7590

06/13/2005

Blakely Sokoloff Taylor & Zafman LLP
12400 Wilshire Boulevard Seventh Floor
Los Angeles, CA 90025-1026

EXAMINER

YE, LIN

ART UNIT

PAPER NUMBER

2615

DATE MAILED: 06/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|--|--------------------------------------|---------------------------------------|--|
| <p align="center">Advisory Action Before the Filing of an Appeal Brief</p> | Application No. 09/696,436 | Applicant(s) COOPER, TED J. | |
| | Examiner Lin Ye | Art Unit 2615 | |

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 25 May 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
 (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
 (b) ☐ They raise the issue of new matter (see NOTE below);
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

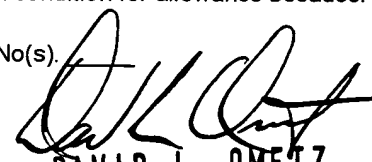
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
 5. ☐ Applicant's reply has overcome the following rejection(s): _____.
 6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
 7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
 The status of the claim(s) is (or will be) as follows:
 Claim(s) allowed: _____.
 Claim(s) objected to: _____.
 Claim(s) rejected: 1-20.
 Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See attached.
 12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s).
 13. ☒ Other: See Continuation Sheet.


 DAVID L. OMETZ
 PRIMARY EXAMINER

Continuation of 13. Other: The claims will be rejected as set Final in the previous Office Action mailed on 3/21/05.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 5/25/05 have been fully considered but they are not persuasive as to claims 1-20.

For claims 1-20, the applicant argues that references of Hel-or, Kimmel and Ebel individually. The applicant states the Hel-or reference does not disclose enhancing edge detail, the Kimmel reference does not disclose increasing edge detail of the raw image as part of a demosaicing process, and the Ebel does not disclose a demosaicing process; therefore the combination cannot render obvious Applicant's invention as claimed in claims 1-20.

The examiner disagrees. It should be noted that the "demosaicing process" is well known as a **interpolation process**, e.g., the raw image collected from the image sensor array is a mosaic of red, green and blue pixels, for instance. To form the pixels in the "final" image, the image sensor device (or software) must interpolate pixels in order to fill in the missing values as "demosaicing process".

The both Hel-or and Kimmel references clearly show the raw image data **has to be** interpolated in order to fill in the missing values for constructing a full colors "final" image (See the Hel-or reference Col. 3, lines 55-60 and the Kimmel reference page 1222-123, Figure 4).

The Ebel reference teaches in Figure2, the raw image data captured by CCD color sensor (See Col. 5, lines 20-65), the software **interpolates** the adjacent pixels around the pixel in question to provide an adequate a "final" image, however if defect pixels occur on or near the

edge they can mistakenly cause the software to interpolate them as discontinuities in the edge (e.g., this can be considered as “demosaicing process”, See Col. 6, lines 1-17). For trying to overcome the problem, the Ebel reference discloses an **edge enhancement operator** that performed on the **raw** lens image to increase lens edge detail because gray level information alone is not sensitive enough to allow distinction between normal and defective regions of a lens edge (See Col. 9, lines 45-45-51). The Ebel reference is evidence that one of ordinary skill in the art at the time to see more advantages performing the edge enhancement on the captured raw image before any further image processing, so that the image data can be processed appropriately and not falsely reject good lenses (See Col. 7, lines 3-8). For that reason, it would have been obvious to one of ordinary skill in the art to modify the image processing system of Hel-or for providing edge enhancement to increase edge detail of the captured **raw** image as part of a demosaicing process as taught by Ebel.

2. The claims 1-20 will be rejected as set Final in the previous Office Action mailed on 3/21/05

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lin Ye whose telephone number is (571) 272-7372. The examiner can normally be reached on Mon-Fri 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2615

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DAVID L. OMETZ
PRIMARY EXAMINER

Lin Ye
October 29, 2004